

OLDEST BEE PAPER  
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Published every Wednesday, by

THOMAS G. NEWMAN,  
EDITOR AND PROPRIETOR.

The Editor of the BEE JOURNAL was prevented from attending the Kentucky State Convention, last week, by an attack of nervous prostration. His physician prescribes rest from brain labors as much as possible, for a few weeks, in order to effect a complete restoration.

The Rev. L. L. Langstroth has been invited to attend the Northwestern Bee-Keepers' Convention to be held at Chicago, Oct. 17 and 18, and accepts in the following language :

"About the invitation to attend the Convention at Chicago, and your very kind invitation to me to share your hospitalities, friend Newman, allow me to say, I accept both with great pleasure, and if nothing unforeseen should prevent, I will be glad to make the personal acquaintance of the Northwestern bee-keepers.

L. L. LANGSTROTH."

Conventions and Bee and Honey Shows are now the order of the day, and every bee-keeper should arrange to attend these helps to our pursuit, and thus aid in every way possible the advancement of the art. By looking over the columns of the BEE JOURNAL the times and places of such meetings can be ascertained, and arrangements made ahead, so that all may attend them.

The new two cent rate of postage for letters goes into effect on October 1. Three cent postage stamps will then be but little used. For all fractions of a dollar sent to us hereafter we should prefer either one-cent, or else five or ten-cent postage stamps. Do not send coins in any letter.

## Honey Yield in Wisconsin.

The following items are from the Milwaukee *Sentinel* of last week :

Mr. Crain, the owner of a large number of bees at Tyron, in Dunn county, reports an extraordinary yield of honey this season, owing to the unlimited stretches of clover fields. The apiculturists of Eau Gallie, Waubeka, in that county, are also highly gratified with the results of the season.

James Nipe, at Spring Prairie, says his bees have stored over 10,000 pounds of honey so far this season. It has been a very good year for white honey, as clover was in blossom much longer than usual.

E. A. Morgan, of Columbus, shipped 1,000 pounds of honey to Eau Claire last week, his third shipment to that point, this season. The price received was 20 cents a pound.

T. L. Wolfenden, of Lake Geneva, recently sold 6,000 pounds of honey to a Cincinnati firm.

Excursion tickets from Cincinnati to Niagara Falls, good until Oct. 28, can be bought for \$15. Excursion tickets from any part of the South or Southwest to the Louisville Southern Exposition can be had, or from Louisville or Cincinnati Exposition. In this way, if in no other, Toronto, which is only 30 miles from Niagara Falls, may be reached cheaply.

The Summer and Fall Catalogue of E. P. Roe, Newburgh, N. Y., is received. It consists of 20 pages, and describes small fruit plants and grape vines.

We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails we will cheerfully send another, if notified before all the edition is exhausted.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey at Fairs, will sell almost a fabulous quantity of it.

## Bee-Keeping in Arkansas.

The Little Rock, Ark., *Gazette* contains the following :

Apiculture or bee raising has become a great business in Devall's Bluff, and Dr. W. W. Hippolite, who is accredited with being the pioneer apiculturist in the State, carries it on extensively. Not the Doctor exactly, but by his son, Walter H. The Doctor supervises matters, however, and there are few who are better versed in the natural history of the bee than he. He has 58 colonies, or as they are sometimes called, hives, and although the season does not close until November, he has gathered 3,000 pounds of honey, a great part of which he sends to Little Rock and Hot Springs. The Doctor intends to send some fine specimens of honey in the comb and extracted honey to the Louisville Exposition. A. W. Sory, another apiculturist, has gathered 5,000 pounds this season, and carries on an extensive business. It has been stated by good authority that Arkansas honey stands second to none, and that the State is one of the best locations in the Union for successful operations in apiculture.

A fight recently occurred in Virginia City between a cat and a hive of bees, in which the bees got decidedly the best of it. The cat's attention was attracted by the bees, and thinking them some new kind of game, dabbed viciously at them as they passed in and out of the hive. At last, one day the bees got angry and poured out of the hive by the hundred, and darted for the fur of tabby. The cat rolled herself into a ball, and bit, sputtered, and clawed with all her might, but with no effect, as the bees kept stinging as diligently as ever. After a time she was taken away, and was a week recovering from the effects of the stings. She cannot be persuaded to go near the hive any more.

**Fairs.**—To any one exhibiting at Fairs, we will send samples of the BEE JOURNAL and a colored Poster, to aid in getting up a club. The Premiums we offer will pay them for so doing. For a club of 8 subscribers to the Monthly BEE JOURNAL, or 4 Weekly, we will present Dzierzon's Rational Bee-Keeping, price \$2.00.

## Immense Yield of Honey.

The Chenango, N. Y., Tribune of Aug. 18, contains the following concerning an immense yield of honey in the apiary of Mr. F. E. Smith, of Chenango, N. Y.:

One of the grandest sights we ever beheld in connection with a display of bees and honey has been witnessed by large numbers of people who have lately visited Sunny Side apiary, located in this village, and owned by E. F. Smith.

On the first of May last, Mr. Smith commenced the season with 30 colonies of bees, mostly Italians and Cyprians, in improved Langstroth frames adapted to winter chaff-packing hives, having lost 7 during the winter and early spring.

The early maple and apple blossoms placed the colonies in fair condition, and the first swarm (Italians) issued May 26, in the midst of apple bloom. White clover was abundant, and commenced blooming about the 10th of June, but owing to excessive rains very little nectar was secreted during that month, and consequently the bees did very little up to July 10. After that time they commenced to boom, and upon the opening of basswood blossoms (about July 21), they fairly outdid themselves, and from that time onward until Aug. 10, with very little interruption, honey seemed to rain down. Many of the colonies being so numerous as to bring in upwards of 20 pounds in one day.

A record was kept of 2 colonies which we give below. For convenience we will number them 1 and 2. For further convenience we will name the parent colony of No. 1, "B," the first swarm "A," and the two-frame nucleus "C." All being the outcome of No. 1 colony without any outside help except that frames of foundation were supplied fast as needed.

## Record of colony No. 1, and its increase.

	A	B	C
June, capped honey....	28	8	
" extracted honey....		4	
July 1, capped honey....	26		
" 18, extracted honey..	30		
" " capped honey....	16		
" 25, extracted honey..	49	31	
" 27, " ..	47	30	
" " capped honey....	19		
" 30, " ..	6	12	
" " extracted honey..	53	42	
Aug. 2, extracted honey..	54	38	
" 3, capped honey....		16	
" 6, extracted honey..	56	43	
" 9, " ..	58	42	
" " capped honey....	8		
" 13, extracted honey..	30	15	
Total.....	437	269	55

Summary No. 1, "A," 437; summary No. 1, "B," 269; summary No. 1, "C," 55; total No. 1 and increase, 761.

"C" has also 28 one-pound boxes nearly filled, and Mr. S. expects to get at least 50 pounds of fall honey each from "A" and "B." If he succeeds, this will bring the amount

from the one colony and increase up to nearly 900 pounds. Of the above 139 pounds is comb honey in one-pound boxes, the remainder, 622 pounds, extracted. Reckoning comb honey at 20 cents per pound, and extracted at 15 cents, the result is as follows:

622 pounds of extracted honey, at 15 cents, \$93.30; 139 pounds of comb honey, at 20 cents, \$27.80; add for 20% pounds of comb honey, at 20 cents, "C," \$4.10; add for 1 pound of wax, 30 cents; 1 new swarm of bees, \$8; 1 nucleus swarm of bees, \$7; total profits No. 1 colony and increase to date, \$140.50.

## Record of No. 2 colony alone.

June, capped honey.....	lbs. 30
" extracted " .....	33
July 18 "	20
" " capped " .....	32
" 25 extracted honey.....	55
" 28 "	53
" 31 "	51
" " capped " .....	18
Aug. 3, extracted "	49
" 7 "	51
" 9 "	42
" 13 "	24
" 14 " from extra frames below except brood-nest of eight frames.....	34
Total.....	lbs. 492

Here we have a grand total of over twelve hundred and fifty pounds of honey worth over two hundred dollars, from two colonies of bees in the spring.

One colony, which we will call No. 3, has given no honey or increase. This colony was queenless on the first of June, with only a handful of bees. A queen-cell, and a small patch of brood and eggs were added from another colony, and they are now strong, well along in the boxes, and will give a good showing.

Consequently, what honey has been taken off, was taken from 29 colonies, spring count. No honey was extracted from the brood-chamber. Over 6,000 pounds of honey has been taken to date, and there is over 700 one-pound section boxes on the hives well along, and Mr. S. believes he will get one thousand pounds more this season. This is probably the largest honey yield on record, being that over 20 per cent. of the above is comb honey in one-pound section boxes.

Sunny Side apiary can be seen by calling on the proprietor, who is thoroughly conversant with the business, and takes pride in showing his tons of honey. We have spent some time, and have taken considerable pains to get at these figures, and can vouch for all we have said. Incredibly as the above report may seem to some, who know little of bees and their industry, it is true, nevertheless, and can also be substantiated by Rev. A. Eastman, of this village, who has been in attendance at Sunny Side apiary during the honey season; and by many of our citizens who have made frequent visits there. People come many miles to see this wonderful apiary and get the honey.

Many old bee-keepers who are now using the box hive of the Pilgrim fathers, are taking notes on the standard Langstroth movable frame outdoor wintering, chaff-packing hive now used by Mr. S., and also of his superior strains of Italian and Cyprian bees for future reference.

In the meantime we congratulate friend Smith on having obtained what is probably the greatest honey yield on record from 29 colonies of bees, spring count. He now has 66 colonies in prime condition.

## Notice to Iowa Bee-Keepers.

Quite a large number of bee-keepers in our State have expressed a desire for the formation of a State Association. A consultation with others has resulted in the decision not to attempt to hold a meeting during the coming State Fair, but if thought best to hold one during the time of the meeting of the State Agricultural Society at Des Moines next January. All bee-keepers who may be present at the Fair are earnestly requested to report to the Rev. O. Clute, at the Apriarian Exhibit, on or before 1 p.m. of Tuesday, the 4th day of September, 1883, who will give them notice of a meeting for consultation, and also for the selection of a committee of arrangements if one is deemed necessary.

O. O. POPPLETON,  
Vice-Pres. N. A. B. K. Society.  
Williamstown, Iowa, Aug. 10, 1883.

## Reduced Fare to Toronto Convention

President D. A. Jones, under date of Beeton, Aug. 25, 1883, writes us as follows:

I have received a letter, of which the enclosure is a copy, from Mr. Hill, Manger of the Toronto Industrial Exhibition, which is the outcome of an application which I made to him to secure reduced rates for bee-keepers in the State of Michigan. As it would receive publicity through your JOURNAL, perhaps you will be kind enough to give it insertion. There are single fare rates for the whole week of our convention.

D. A. JONES.

BEETON, Aug. 25, 1883.

H. J. HILL, Esq.—Dear Sir: Replying to yours of the 15th inst., I would say that we do not wish to advertise any reduction from regular rates, but if there are any on our line who apply to you, and you will refer the application to me, I will furnish them with certificates on which they can obtain tickets to Port Huron or Detroit, and return at excursion rates.

Yours truly, D. EDWARDS.

"A tired bee," says Sir John Lubbock, "bums on E, and, therefore, vibrates its wings only 380 times in a second." A brisk little bee humming on A will, on the other hand, increase its vibration to 440 per second.

## Local Convention Directory.

Time and Place of Meeting.		
Sept. 4.—Ohio State, at Columbus, O.	D. Speer, Sec.	
Sept. 4.—N. W. Ill., & S. W. Wis., at Ridot, Ill.	Jonathan Stewart, Sec.	
Sept. 12.—Eastern Indiana, at Richmond, Ind.	M. G. Reynolds, Sec., Williamsburg, Ind.	
Sept. 12-14.—Tri-State, at Toledo, Ohio.	Dr. A. B. Mason, Sec., Wagon Works, O.	
Sept. 18-20.—North American, at Toronto, Ont.	A. I. Root, Sec., Medina, O.	
Oct. 9, 10.—Northern Mich. at Sheridan, Mich.	O. R. Goodno, Sec., Carson City, Mich.	
Oct. 10.—Cass County, at Logansport, Ind.	De Witt Brown, Sec.	
Oct. 17, 18.—Northwestern, at Chicago, Ill.	Thomas G. Newman, Sec.	
Oct.—Northern Ohio, at Norwalk, O.	S. F. Newman, Sec.	
Dec. 5-6, Michigan State, at Flint.	H. D. Cutting, Sec., Clinton, Mich.	

**NOTE** In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

## Robber Bees and Robbing.

Dr. W. G. Phelps, D. D. S., gives the following in the *Practical Farmer* on the above subject:

One of the most annoying features of bee-keeping, at this season of the year particularly, is that arising from the presence of robber bees. These are in no respect a distinct race of bees, as some erroneously suppose from their peculiar black glossy appearance and active movements. They are simply bees with perverted theivish tendencies. In times when the bee pasturage is scarce they become very troublesome, and much damage and commotion may be caused in an apiary by their persistent attacks on weak hives.

Robber bees may be found in all apiaries, but more particularly in the one whose owner is careless in leaving honey exposed, or daubing sweets about. The propensity to rob seems to gradually develop itself in some bees, and even in whole colonies frequently until leaving the pursuit of honest, hard working honey gatherers, they develop a perfect mania for preying upon the gathering of other bees. No longer satisfied to gather it in minute particles "from every opening flower," they seek it after a wholesale style, from the well-filled hives of their neighbors. Thus they may be found sneaking about the entrance of other hives, endeavoring to slyly gain an admittance. If successful in passing the guards and loading up, they will soon return and bring their comrades, until at last with fierce onslaught and overpowering numbers they take forcible possession, seize upon, and transfer the stores therein to their own hive. The taste once formed, without diligent care, a whole apiary may be demoralized.

As a preventive, where the clover and basswood honey flow is over, it is best to close up the entrances of the hives, particularly the weaker ones, so that but one bee can gain entrance at a time. Thus each hive can be better defended by its owners. In

case of robbing having begun, it is well to stand a broad board close up before the entrance around which the robbers shall have to pass ere getting in. If they still persist, close the entrance entirely for a half hour and dash water upon the robbers that gather at the entrance. It may be, if they still attack it, that the hive will have to be moved to a new stand, or into a cool dark cellar until after sundown, and then taken back. By sprinkling flour on the backs of the robber bees, their hive can readily be ascertained, and I have frequently interrupted and broken up their naughty tricks by giving them a good smoking with the bellows smoker, which frightens them into remaining at home. To get ahead of robber bees when once started, the owner must be up by time in the morning, and closely watch them till after dark. Their propensity to squeeze into the smallest crevices after forbidden sweets (which gives them their glossy black appearance), requires a watchful eye to be kept upon them and a careful closing of hives and handling of sweets in their vicinity.

## Western Bee-Keepers' Association.

The first annual meeting of the Western Bee-Keepers' Association will be held at Independence, Mo., Sept. 20 and 21, 1853. The association being situated in the centre of one of the best honey-producing sections of the country, and easy of access from all parts of the country, it is desirous that as many bee-keepers as can possibly attend will meet with us, and help to make it as interesting and enjoyable as circumstances will permit. In connection with the general business of such meetings, the members of the association have made arrangements for a Bee and Honey Fair, free to the world. The following premiums are offered. Members of the association will not compete for premiums offered by itself.

## By the Association.

Best display of honey (comb and extracted) not less than 20 lbs.	\$25 00
of each, in marketable shape.	
Best 25 lbs. of comb honey.....	10 00
" " " extracted "	10 00
Best queen, with her bees.....	10 00
Best display of apiarian implements, including all the principle fixtures used in the apiary.....	15 00

## Special Premiums free to all.

By the business men of Independence: Best 50 lbs. of comb honey in the best marketable shape, \$50.00.

By the *Sentinel*: Best package of comb honey not over 2 lbs., one year's subscription.

Judges not members of the association: All articles for display or premiums must be entered on the first day of the meeting.

Parties from a distance, who may wish, can consign their goods to either of the members of the committee. The members of the association will

do their very best to provide entertainment for all persons who may visit us.

J. D. MEADOR,  
L. W. BALDWIN,  
C. M. CRANDALL,  
JAMES A. JONES,  
P. BALDWIN.

Committee.

## Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL.  
Monday, 10 a. m., Sept. 3, 1853.

The following are the latest quotations for honey and beeswax received up to this hour:

## CINCINNATI.

**HONEY**—The demand for extracted honey is exceedingly dull; for comb honey, only fair; arrivals are plentiful. Stocks are large in the hands of corn merchants and others. Our own supply is larger than ever, and, for the present, we cannot compete with commission merchants. We may have to offer lower figures. Our prices so far were 75c. for extracted, and 14@16c. for comb honey on arrival.

**BEESWAX**—Arrivals of beeswax are good at 25@28c., and the demand is fair.

CHAS. F. MUTH.

## NEW YORK.

**HONEY**—We take pleasure in quoting the following prices on honey, obtainable in our market: Fancy white clover, 1 lb. sections (no glass) 20@21c.; fancy white clover, 2 lb. sections (glassed) 15@16c.; fancy white buckwheat, 1 lb. sections (no glass) 15c.; fancy buckwheat, 2 lb. sections (glassed) 13@14c.; ordinary buckwheat, and 1 lb. sections (glassed) 11@13c.; extracted clover honey in kegs or barrels 9@10c.; extracted buckwheat honey in kegs or barrels 7@8c.

**BEESWAX**—Prime yellow beeswax 31@33c.

H. K. & F. B. THURBER & CO.

## CHICAGO.

**HONEY**—Sales are restricted to the present needs of dealers, nearly all of them expect lower figures, and are refusing to buy, unless large concessions from present prices are given them. 1 lb. sections well-filled, 18c.; 1 1/2 and 2 lb. sections, 16@17c. None but white is being taken. What is offered of last year's crop is unsaleable at over 5@6c. per pound. Extracted, 7@10c.

**BEESWAX**—3@6@35c. for prime to pure yellow.

R. H. BURNETT, 161 South Water St.

## SAN FRANCISCO.

**HONEY**—Receipts were comparatively large the past week, mostly of medium qualities, for which the market is not firm. Transfers are largely of a jobbing character. White to extra white comb, 16@30c.; dark to good, 10@13c.; extracted, choice to extra white, 7@8c.; dark and candied, 6@8c.—

**BEESWAX**—Wholesale, 27@28c.

STEARNE & SMITH, 43 Front Street.

## ST. LOUIS.

**HONEY**—Quiet sale. New comb 14@15c.; fancy small packages higher; strained and extracted 7@8c.

**BEESWAX**—Easy, at 24@25c. for choice.

W. T. ANDERSON & CO., 104 N. 3d Street.

## CLEVELAND.

**HONEY**—New honey continues in good demand at 18@19c. for choice 1 lb. sections, and such are readily placed as fast as received; 2 lbs. not so active, at 16@18c. Second quality sells 14@17c. Extracted not in demand.

**BEESWAX**—None in Market.

A. C. KENDEL, 115 Ontario Street.

## BOSTON.

**HONEY**—We have had a shipment the past week from J. H. Crane, and a good sized shipment from J. V. Caldwell, of Cambridge, Ill., whose honey we had last year.

We quote our market prices, as follows: White clover, one lb. combs 20@22c.; white clover, 2 lb. combs 18@20c.; extracted, 9@10c.

**BEESWAX**—Our supply is gone; we have none to quote.

CHOCKER & BLAKE, 57 Chatham Street.

**NOTE** According to the AMERICAN NEWSPAPERS CATALOGUE of Edwin Alden & Bro., Cincinnati, Ohio, just published, containing over 300 pages the total number of Newspapers and Magazines published in the United States and Canada is 13,180 (showing an increase over last year of 1,028). Total in the United States, 12,170; Canadas, 1,007. Published as follows: Dailies, 1,227; Tri-Weekly, 71; Semi-Weeklies, 151; Weeklies, 9,955; Bi-Weeklies, 23; Semi-Monthlies, 237; Monthlies, 1,394; Bi-Monthlies, 12.



For the American Bee Journal

### Excessive Humidity in Winter.

DR. G. L. TINKER.

Mr. S. Corneil, on page 405, of the BEE JOURNAL, gives a highly interesting table on the comparative temperature and humidity of the winter of 1880-81 with the winters of other years. The record is complete from 50 stations in the northern and western States, and in a large number extends over a period of 13 years. For these records he is indebted to our Chief Signal Service Officer at Washington, to whom bee-keepers generally are under obligations for the time and labor of preparing them.

The table indicates beyond peradventure that severe and protracted cold conjoined with an unusual humid state of the atmosphere were the chief causes of the great bee mortality of the late hard winter.

It so happened that throughout the greater part of the eastern States, including New Jersey and Maryland, that the rate of the mortality was much less than at points farther west. In the State of Maine, as indicated by the table, the cold was not below that of average winters, while the humidity was somewhat less. Mr. Plummer, of Augusta, wrote: "We have not had much snow, which all left about the 1st of March." After stating that in his vicinity there were lost only 3 out of 119 colonies, he added: "I think that this is a good report for a locality so far north." And such was the tenor of nearly all the reports from the New England States. Mr. Alley reporting: "Bees never wintered better in this vicinity." There was not the usual snow fall in the eastern States, but the middle States, and the great West were deluged with snow from the 1st of December, 1880, to the 15th of April, 1881. So long as the snow did not melt to any great extent, the bees did not appear to suffer.

When February came in the temperature began to moderate and the snow to melt. The atmosphere became damp, and continued unusually damp all through March in all of those sections where there had been heavy snow falls. Now came the struggle for existence to the bees. February witnessed a frightful mortality, but in March it became appalling. Whole apiaries were swept out of existence, and when at last summer came, less than half of all the bees in the northern States remained alive.

The table of Mr. Corneil indicates what might have been suspected, viz.: that when so great a fall of snow occurs, extending over a great part of the country, we are certain to have a very damp atmosphere during the early spring, and, consequently, an unfavorable condition for bees. It indicates, moreover, what the great

majority of bee-keepers have long felt, but have been unable to prove, viz.: that in winter excessive dampness in the hive, or in the atmosphere outside, is the most dangerous thing that can menace a colony of bees. For it appears that cold alone is not injurious to bees, nor is protracted confinement under favorable conditions. Nor yet is their normal food (honey and pollen) injurious, if the quality is good. These facts, at the present time, are indisputable. If then, dysentery be the disorder from which so many colonies of bees succumb in winter, we are forced to the conclusion that dampness is the principal cause of it.

#### THE POLLEN THEORY.

It is Mr. James Heddon, I believe, who has the distinguished honor of being the author of this theory which occupied to a great extent the columns of the BEE JOURNAL not long since. The agricultural press took up the refrain as if the majority of bee-keepers acquiesced in the strange doctrine, until the general reader has been led to believe that a food provided by nature for the bees is a deadly thing for them to eat in winter.

Mr. Heddon also holds parentage to the "bacteria theory," on which he was "ten to one" for a long time. Well, now, if he had only just stuck to this, his first ideal offspring, he would to-day have been standing upon solid ground, as to the probable cause of many cases of bee dysentery that have occurred in isolated apiaries or in apiaries in certain limited portions of the country.

Now, that the germ theory of disease is quite generally accepted by the most learned men of the times, it seems probable that a specific microphyte may gain entrance to the bodies of the bees by means of their food, or in some other manner, and cause dysentery. But no germ theory can be made to account for the mortality of bees in the winter and spring of 1881. If that winter had been mild, with little snow fall, and there had been great mortality, such a theory might be entertained. But neither can the pollen theory be made to so account.

As stated once before in the columns of the BEE JOURNAL, I am unable to see how the eating of pollen in winter can be a cause of dysentery in any of its forms. If it were claimed that the eating of aphide honey was a cause of some cases, the hypothesis would have at least the merit of reasonableness. But to assume that pollen, a normal food, may cause it, is quite unintelligible.

My belief is, that bees in a normal condition eat pollen all winter, not to any great extent it is true, because much nitrogenous food is not required in a comparatively inactive condition. If bees can be wintered, as they often are, without a flight for five or six months, and come out healthy, I think it must be just as difficult for others to see how pollen may cause the disease.

In the early spring of 1881, I had two hybrid colonies that had failed to

gather as much honey the previous fall as my Italian colonies, and about the 1st of March, they became short. They were discovered in time to save both from starvation by the great number of bees that were observed crawling slowly out of their hives as if very sick. Although quite cold, I opened both hives and found that they had no honey, and that they had eaten nearly all their pollen up also, as judged by the marks of their mandibles on the little pollen left. I put unsealed honey over each, and the apparently sick and dying soon revived. About four weeks afterwards they were able to take a flight. They had been gorged with pollen, but had not a sign of dysentery. If the consuming of much pollen was a cause, why did not these bees get it? But instances of this kind have been numerous.

It appears that Mr. Heddon thinks that because some colonies prepared for winter with no stores but cane sugar syrup, seem to winter better than other colonies having natural stores, the pollen theory is demonstrated. I would inquire, why not think the honey to be the cause instead of the pollen? Both being the normal food of the bees. If a child should take *cholera infantum* and die, who had taken no nourishment but milk and bread of good quality, both being normal food, would I be justified in assuming that it was the bread or the milk that caused the disease, or neither? I think I hear a common answer, neither. And so with the causation of bee-dysentery, it is neither the honey or the pollen, if of ordinary good quality.

If it can be proved (which I very much doubt) that bees will winter better on cane sugar syrup than upon their natural stores, it would demonstrate only this, that they are able to hold out longer against adverse conditions upon the former food than the latter, not that either kind of food in any case can be a cause. For instance, a man insufficiently protected and exposed to the intense cold of the Arctic regions will survive longer on a diet of tallow or animal fat than a diet of sugar, yet both of these agents, and honey also, are hydro-carbons. But cane sugar contains a larger percentage of heat producing elements than grape sugar, which is the chief constituent of honey, and animal fat contains a larger per cent. than cane sugar. It would, therefore, appear that if cane sugar syrup is a better diet for bees in winter than honey, that animal fat (if the bees could be made to subsist upon it) would be better than either.

It may be assumed that my comparisons are not parallel, that bees in a state of confinement pass no feces. But my own observation, and that of many other reliable observers is, that they do, so that the question of liquid or solid food can signify nothing for or against the theory. The mere fact that pollen contains more particles that cannot be digested than honey, is no evidence that the indigestible particles in the intestines of the bees may cause dysentery. Are not the

intestines of the bees, as well as of all animals, made to carry off these same particles? If bees pass, in confinement, under favorable conditions, their feces regularly as there is every evidence that they do, from the time they are put into winter quarters whether they may have flights or not, judging from the amount of the excrement that may be raked from the bottom board of a hive every few days during the winter, in what manner are we to conclude that the indigestible particles are capable of causing disease?

Now the fact is just this, bees hold an intermediate place between warm and cold blooded animals. They are more or less active, and develop heat at all times. There is, therefore, always tissue waste, and as a part of the excrement of all animals is made up of this tissue waste, it cannot matter what the bees may subsist upon, there will be formed excrement, and I contend that this excrement is passed regularly by them throughout the winter, and the passage is only interfered with by unfavorable conditions to the life of the bees.

But if there is tissue waste in winter, there is also a necessity for nitrogenous food, and so I believe, as before stated, that bees eat a little pollen all winter, and that that little is just as necessary for their well-being to eat as is honey. I, therefore, stand for the wise and intelligent provision in nature of honey and pollen for the bees, and hold that they constitute the best food it is possible for them to have under all circumstances, and I re-assert that it is no more probable that pollen should be a cause of dysentery than that honey should be, and that it is impossible for any one to comprehend how either can be, assuming that both in any case are of good quality.

I had supposed that Mr. Heddon had abandoned the pollen theory, but from a recent article in the *BEE JOURNAL* it appears that he still adheres to the old flame. The above is, therefore, very respectfully submitted, for there is no one, perhaps, more deserving than Mr. H. for the zealous and persistent effort to unfathom the mysteries that have heretofore surrounded the causes of bee dysentery in winter.

New Philadelphia, O.

For the American Bee Journal.

#### Bees Injured by Heat.

M. BRAY.

I think that the bees with deformed or crippled wings, that Mr. J. D. Enas speaks of, on page 371, must have been caused by over-heating. On July 8, 1882, the thermometer went up to 108° in the shade, in this place. This day ruined all of the brood in my apiary.

The young bees were very much dwarfed in size, with only rudimentary wings, and would leave the hive much as Mr. Enas describes their leaving. The queens stopped laying

for some two or three weeks; the bees, being mostly field hands, during this time flooded the brood-chamber with honey. When the queens commenced laying, it was only a small patch of eggs at first, and increased slowly, as in early spring. We have had some extreme heat during the present season; the mercury going as high as 110°. By raising the hives from the bottom boards, and keeping them well shaded, I have escaped injury to the brood from heat; but the old bees have been injured by heat while clustering on the outside, for soon the shiny or hairless bees put in an appearance, in quite large numbers. There had been no robbing among my bees for the season, and I claim that this smooth appearance was caused by heat.

These hairless bees are short lived, about two weeks, and the most of them lie dead in front of the hives. A neighbor of mine has had brood ruined and old bees scalded in the same hives, and now some colonies are very weak. I hear persons say that all of this talk about wintering in the North amounts to nothing to us in California; this is a land of perpetual bloom; but I think a little protection from cold in winter, and protection from heat in summer, would not be amiss.

I am now devising a double-walled hive to secure my bees both from heat and cold. To-day, as I write, the mercury stands at 104°. The bees have come through with a light harvest, but the bees are in good condition.

New Almaden, Cal., Aug. 18, 1883.

Read before the Maine State Association.

#### Breeding the Best Queens.

J. B. MASON.

In no department of animal life is it so easy to make rapid progress towards perfection in breeding, than with the honey bee. With our stock generally, it requires a series of years to add such qualities as are deemed desirable, or to get rid of those we wish to eradicate. This, of course, is owing to the fact that conception and uterine growth is a slow process, when compared with reproduction in the insect class. With the bee, several generations can be produced in the same time that would be required to bring forth a single specimen among the mammals.

Knowing these facts, and understanding as we all may, that 16 days only is required to produce a queen from the egg, and only 25 to 30 to have it fertilized and ready to reproduce itself, it will be seen that the possibilities in the matter of perfecting our colonies, are incalculable. While in the past considerable attention has been given to matters of queen breeding, the chief attempts have been to work for color; why it is I know not, that a bright yellow color has been considered the type of beauty in the Italian bee, or why a rich, dark brown has not been accepted as the style. But such has been the fact,

and the aim of queen breeders has been to produce handsome bees, often times at the sacrifice of those other qualities which alone can make them a source of profit. In a state of nature such is not the case; as a rule, the strongest and hardiest become the fathers and mothers, while the weaker must necessarily go to the wall. The result is invariably, that all animals reared in a wild state, are as nearly perfect as it is possible to have them, while it remains with man to produce inferior specimens from superior stock. In the breeding of cattle and stock generally, the rule now is to strive to improve.

We first ascertain or determine what particular points we desire to maintain and perpetuate, and to bend our best energies to the work. Already we have made vast progress in this direction. As an evidence, I can point to the vast size of our Short-horns, the milk, butter and cheese qualities of our Jerseys, and horses for speed, while ten years ago a mile in three minutes for a horse to travel was considered fast. We now think we are getting a slow rate of speed unless we can drive that distance in 2:25 or less. The time has come, however, when beauty of color alone in our bees is a matter of secondary importance. Bee-keepers are demanding something more; they have found out that beauty alone will not secure them a big crop of honey, and as but few keep an apiary for experiment only, they desire, regardless of color, such stock as will guarantee them a good surplus crop, not that they object to beauty, but unless they can obtain it in connection with those other qualities which make their bees fairly remunerative, they decidedly prefer to take color as it comes, rather than to please the fancy at the expense of the pocket. How, then, shall we rear such queens as will prove the most remunerative, and which perpetuate those qualities that will give us bees for business? In the first place, then, we must select for the queen mother such as give us hardy, long-lived, industrious, strong winged and peaceable bees. If such a colony is of the right color for style, so much the better.

A queen reared from the egg of such a colony, must necessarily prove a good one, and if she becomes fertilized by a drone from another such a colony of different strain, we have so far done all that is necessary to improve in the right direction. Keeping the above points in view, and breeding only from strong colonies, we will get the best queens possible. If we wish to rear queens, however, at a time when no honey is being gathered from the fields, we must feed our bees liberally while cell building is going forward, as there is no doubt that better queens are reared while the bees are getting stores plentifully, either from the field at large, or from the feeder at home. I do not think it makes any difference whether queens are reared under the swarming impulse or not, as regards their value, provided we supply artificially and in plenty the stores which they naturally

gather for themselves. In fact, I am rather of the opinion, that if we keep close watch and force our bees to use eggs rather than larvae three or four days old, as they are apt to do when under the swarming impulse, we shall get a stock of queens superior to many that remain in the hive after a swarm has issued.

By careful attention to details, and by taking as much care in the selection of the drone mother as of the queen mother, and always selecting strong colonies of business bees from which to procure both queen and fertilizing drones, working for beauty as far as is practicable, yet making that point alone a secondary one, we can soon produce a strain of bees, that are not only capable of bringing us in a handsome amount of profit, but also as beautiful in color as we may desire, and so peaceable in disposition as to be handled without danger of their stings. All this will cause trouble and care on the part of the breeder, and as a rule, in order to bring breeding to absolute perfection, it must be made a specialty; the ordinary bee-keeper cannot rear perfect queens and give that time to a honey apiary as will be found necessary to give the best results. Let us look forward then to the good time coming (and it is sure to come) when our bees will be as near perfection as are our horses and cattle.

In this article, I have not attempted to give any directions for rearing queens, as they can be found by any one in the various manuals and journals of the day, but have endeavored briefly to point out the necessary requirements to make our colonies as perfect as it is possible to have them, and as the colony depends wholly upon the queen, and the drone she mates with, all that we require is to select both male and female parents, from such colonies as possess the most desirable qualities, and by following this plan out in detail, we shall soon be able to accomplish our purpose, and that, too, with positiveness and certainty, and in an exceedingly short period of time. We have the patience to work for a series of years to improve our cattle, why not have the patience then for a few months to bring this about with our bees, especially when we know that we shall attain success eventually?

Prairie Farmer.

#### Bees in Poetry.

S. V. COLE.

Of the little folks of nature the bees are among the most interesting. They shine not only in the field of flowers, but in the field of letters. They supply the husbandman with food, and the poet with simile and metaphor. This was especially true of the ancient poets. The Muse, in coming hither from the Golden Age of Saturn, started like the linden in Tennyson's "Amphion,"

With all her bees behind her.

If we ask what has made the bees so interesting, we find, among other

causes, that they are creatures with whom order seems to be the first law. The sluggard may go to the ant for lessons in the art of perseverance, but his education is not complete until he has graduated from the bee in the science of method, economy, and the duties of a good citizen.

A bee makes wise plans, and works for the common weal of his nation; and whatsoever he findeth to do he doeth with his might. Even when he uses his sting, he puts his whole soul into it, for he is soldier as well as citizen. This double character has led the poets to compare the bee community to a State, in which every member has his special duty; but in this comparison the bees have the advantage. Our systems are the imperfect development of ages, whereas the bees received theirs perfect in the beginning; so that Virgil says they pass their lives beneath "unchangeable laws." Shakespeare calls them

Creatures that by a rule in nature teach  
The art of order to a peopled kingdom.

Virgil has sung of the bees in fuller strains than any other poet, and has interwoven fact, theory, legend in a most charming manner. The fourth book of the Georgics, the most perfect of his poems, is devoted to this theme. Here occurs the story of the shepherd Aristaeus, who lost his bees and complained to his goddess-mother "in her chamber in the river-depth." She directs him to Proteus, the seer from whom he learns the secret of replenishing his hives.

In Virgil the bees are minified types of humanity, just as the gods are magnified ones; and they go about their business, therefore, after the manner of men:

Some seek supply of food  
And by agreement labor in the fields;  
Some in their narrow homes do lay the tear  
Of the narcissus and the gluey gum  
From bark of trees, to be their hive's foundations.

The contrast between the aged and sedate bees, and their more vigorous companions is very curious:

The aged guard towns, and build the combs  
And mold the curious houses; 'tis their charge.  
But late at night the younger ones return  
Wing-weary home, their legs thick-smeared with  
thyme.

One observes that the Latin poet does not forget in his figures to bring the bee-commonwealth under Roman laws and customs. In another place he speaks of their "setting out on their airy march, and pulling up the standards of the camp." Indeed, the Roman bees are soldierly in bearing, though not more so, perhaps, than their English relatives. As, in Shakespeare, some,

Like soldiers armed in their stings,  
Make boot upon the summer's velvet buds,  
so the Virgil,

Some stand like sentinels before the gates.

At times the whole nation is roused by an unfriendly challenge. Then it is they show themselves true Romans. Their hearts "throb with the spirit of war," says Virgil. A sound is heard "that mimics the fitful blasts

of trumpets." The excited bees "flash their wings," "whet the points of their beaks," throng around the chief's pavilion, and—*mirabile dictu!*—"with loud shouts defy the enemy!" Then comes the conflict, in which

The leaders, midmost of the battle lines,  
Conspicuous for their wings, exhibit how  
A mighty soul works in a narrow breast.

The analogy between bees and men is seldom carried more dangerously near the verge of the ridiculous than when a bee dies and the survivors bear out the lifeless corpse.

And form the mournful funeral train.

Time has somewhat dimmed the picture, but with its suggestion of the busts of dead ancestors and other by-gone accompaniments of a funeral, it must have been somewhat vivid in its day.

Bees, along with ants, birds, leaves, and hailstones, furnished the ancient poets with convenient similes where numbers were involved. Homer compares the Greeks gathering for battle to "swarms of closely-thronging bees, always issuing in fresh numbers from the hollow rock." Aeneas, looking down on Carthage from a distance, saw the people at work on the new buildings like so many bees in summer. And Milton, whose mind was filled with classic forms, makes Satan's minions swarm to the council at Pandemonium

#### As Bees

In springtime, when the sun with Taurus rides,  
Pour forth their populous youth about the hive  
In clusters.

In American poetry, Emerson's "Humble-bee" and Whittier's "Telling the Bees" are unlike anything the ancient Muse produced, and also differ widely from each other, both in style and sentiment. The former contains the thoughts which arise in the mind of a philosopher as he calmly contemplates the

#### Sailor of the atmosphere

making his tiny voyages from flower to flower; while the latter is a simple and very effective appeal to the affections. Mr. Whittier's poem is founded on the curious custom, introduced from England and said to have prevailed to some extent in the rural districts of our own country, of informing the bees, in the event of a death in the family, and draping the hives in black. This was supposed to be necessary to prevent the bees from flying away in search of a new home:

Under the garden wall,  
Forward and back,  
Went drearily singing the chore-girl small,  
Draping each hive with a shred of black.  
\* \* \* \* \*  
And the song she was singing ever since  
In my ear sounds on:  
"Stay at home, pretty bees, fly not hence!  
Mistress Mary is dead and gone!"

As good order is so strikingly exhibited in the government of the bees, for the bees, and by the bees, it seems appropriate that in Egyptian hieroglyphics the bee should represent royalty, and, in latter times, become the symbol of the French Empire. In France the royal mantle and standard

were thickly sown with golden bees, and in the tomb of Childeric, in 1653, there were discovered 300 bees made from the same precious metal.

For the American Bee Journal.

### Another Dual Queen Wrinkle.

J. O. SHEARMAN.

I have about come to the conclusion in my own mind that the usual cause for two-queen-ed-ness is an intent to supersede the old queen. And this is why: I had a queen in a full colony which had never gone out with a swarm (and this is her third season). She always kept her hive well stocked with bees which did well on surplus, and was, therefore, a favorite. I looked into the brood-chamber in basswood time (forepart), and found queen-cells capped, so I set the boys to watch for the swarm that I expected must come the next day or so, but the rain continued to come, with 2 or 3 cooler days, and the swarm did not come out. They still crowded the surplus chamber, so just about the last part of the basswood flow I looked in the brood-chamber for the reason, as I wanted her queen-cells. I found a queen-cell hatched naturally, also plenty of eggs and brood and the queen. Thinking they had torn down the rest of the queen-cells, and, perhaps, made away with the new candidate, I took the queen out with one comb of brood and bees, and made up a nucleus for the present, as it was a busy time. Then in a few days gave her another comb or two with bees, and noticed soon after that she filled them pretty fairly with eggs.

Now, to the point; on the 10th or 11th day after taking out the old queen, I went to the old hive after my queen-cells, and found plenty of eggs and brood in all stages. Thinking, perhaps, that the old queen had gone back (as it was only 10 feet away), I went to her hive and found her doing well enough, for a nucleus, indicating that the old colony (No. 56) had two queens at the time I took the old one away.

Then I had an after-swarm of hybrids sitting near by for this purpose, so I doubled them up with the old queen, and gave another comb of brood in the back part of the brood-chamber. A few days after this, I looked in to see if all was well, and found queen-cells, and the hybrids in the back part of the hive were building drone comb in a frame that was only partly filled at the time of doubling up.

Censuring the hybrids for murdering my \$3 queen, I looked through the hive to make sure of the case, and found her in the forepart of the hive among her own bees, and looking rather "slimmed up," as she was also at the time I took her out of No. 56 (there had been two days of rather cool weather again). Also I found 4 or 5 queen-cells on a comb that she had occupied. The hive was well stocked with bees at this time, on 8 frames, enough for breeding but not for surplus.

Now I thought I had her where she could furnish queen-cells, so I shut them up for six days, and then went for my queen-cells again, and found, instead, a young queen going around among them, and all the queen-cells destroyed.

Fearing for my \$3 queen again, I hunted her up in the very front of the hive, and doing a good business for this season of the year, and fairly fattened up to a good sized queen again. She had increased the size of her brood-nest 2 or 3 full combs, and appeared to be able to fill the hive in another week.

The young queen appeared to be unfertile, at least to me, as I believe I can tell by their personal appearance, if fertile or not. So I put her in a nucleus to keep till I see how she might "pan out." These are some of my play things. This brings these experiments up to date. Next, if they undertake to supersede old No. 56 queen again, I will see if I can set up a queen-cell establishment with her; take away the cells and put them on the back to try it again, and then see if these queens are as good as others.

New Richmond, Mich., Aug. 25, 1883.

For the American Bee Journal.

### The Honey Season in New York.

JAMES MC NEILL.

The honey flow thus far in this section has been only fair. It opened well in the beginning with an abundant harvest from fruit bloom, which induced early swarming.

The much-wanted white clover bloomed profusely, but the bees did not get much more than a growing living from it. In fact, my observation during the four years that I have kept bees, leads me to hold white clover in less esteem than any other important honey plant. I have usually been able to count 25 bees on raspberries, during the same time that I have been able to find three sipping the nectar from a field of white clover. You can find bees roaring on raspberries from "early morn till dewy eve," and a passing shower drives them home, only to return again as soon as it is over. But it is only occasionally that I have been able to hear the genuine hum of industry from a field of white clover. They do not take possession of the clover field as they do of the raspberries.

The scattering English linden and basswood trees of this section bloomed abundantly, and gave the bees a fine feast. It was from this source that I obtained most of my surplus.

I hoped much from sweet clover, as I have never seen a better stand nor a more abundant bloom. But directly after basswood bloom, a period of cool weather set in, which I think must have interfered with the secretion of the nectar. The nights were exceedingly cool for the season, and some mornings were actually chilly, still the clover was alive with bees during the day, and they stored some surplus. But a first-class case of robbing could

be developed any day by a little carelessness in exposing honey.

With the advent of August a dry spell set in, and it looked as if our usual fall drouth was upon us. Happily this has been postponed by a copious rain on the night of the 18th.

Although buckwheat has been in bloom for two weeks, my bees did not settle down to actual business on this fragrant plant till the 17th. On the morning of that day it seemed as if a ship-load of honey had arrived in port, and my bees were given the contract of unloading it, with a forfeiture, if the task was not performed within a given time.

Can you explain why bees start up so suddenly to work on a plant which has been in bloom for many days?

The late rain will, I think, insure a good fall crop, as we will probably have a fine, warm fall to offset the cool, wet summer. Two years ago I took half of my crop after the middle of August. If I do the same this year I will have no reason to complain, although I cannot boast of such yields as are reported from some sections of this State.

I do not know but that I shall have to take back, in a measure, my strictures on white clover. The grounds of my apiary are sown to white clover, which I have kept closely cut with a lawn-mower till lately. They are now white with bloom. I have just been out to take a look at my busy workers, and the way that they are flitting from flower to flower over my clover lawn, leads me to earnestly wish that I had 100 acres like it. I would then be in clover as well as the bees.

Hudson, N. Y., Aug. 20th, 1883.

[Cold weather retards the nectar, and when it does get a chance, it bursts out and has the same effect as though a ship load of honey had arrived, as is mentioned above. We well knew you would change your estimate of white clover; it is one of the best of honey producers.—ED.]

### Maine Bee-Keepers' Association.

The regular quarterly meeting of the Maine Bee-Keepers' Association was held in Augusta, on Thursday and Friday, Aug. 9 and 10. Although it came in a somewhat unfavorable time for a large attendance, farmers being just in the midst of the grain harvest, yet a goodly number were present at all the sessions, and the discussions were animated and interesting.

The meeting was called to order at 10 a. m. by the president of the association, Mr. F. O. Addison, who presided throughout the meeting, to great acceptance. The forenoon was chiefly taken up with business of a routine nature, and with brief discussions upon a few practical points which came up. At the opening of the afternoon session, a paper was read by Mr. J. B. Mason, of Mechanics Falls, on the subject of queen-rearing. The remainder of the afternoon was

taken up with a general discussion of that and allied subjects.

At the close of the afternoon session the members, their friends, and a few invited guests, by invitation of the editor of the *Home Farm*, visited his home and bee-yard, examined his apiary of 6 or 8 colonies, had a practical bee convention then and there, and were entertained at a little informal lawn "spread," which it is hoped proved as enjoyable to them as it was gratifying to him and his. The evening was pleasant, and passed off too quickly.

In the forenoon of the second day, a paper was read by Mr. John Reynolds, of Clinton, on "Climatic influence in bee management," particularly in regard to the spring care of bees, followed by a brief essay from the pen of Mr. O. L. Sawyer, of Gardiner, on the occasion of the losses of bees during the past winter—a discussion upon the two papers occupying the forenoon.

At the opening of the afternoon session, the report of the committee appointed to award the preferences on articles exhibited, was first presented. Following the presentation of this report there was a discussion in regard to establishing the price of honey, and uniting in its sale, and W. Hoyt, F. O. Addison and J. B. Mason were appointed a committee to correspond with producers and buyers in regard to the advisability of such a course. The next session of the association will be held at Lewiston on the second Thursday of February next, and J. B. Mason, L. F. Abbott, of the *Lewiston Journal*, and Dr. J. A. Morton, of Bethel, were appointed a committee to make arrangements for the same.—*Home Farm*.

#### Bee-Keeping in Mississippi.

O. M. BLANTON.

After an excellent honey flow of two months, the dry season has well set in, and bees are slowing up in gathering honey. I have taken off, up to date, over 2,200 pounds of honey from 201 colonies. The apiaries of Washington County, Miss., and Chicot County, Ark., have yielded remarkably well up to date. Mr. G. C. Vaught and myself visited the bee-keepers of Chicot and Washington counties, last week, and found bee-keeping on the boom; many making preparations for a large increase of their colonies another year. There were only nine bee-keepers working with movable frame hives, last year, in these two counties, and now there are more than 30. We visited the apiaries of Messrs. McLendon, Walter Davis, Victor and Theodore Johnson, Robert Adams, Judge Harriman, and Messrs. Irving & McShee, and were much gratified at their progress and success. All work for extracted honey. On account of sickness we failed to call on Mr. Kinckead. We were informed that his apiary was in fine condition. He and Mr. McLendon both have their own foundation machines, and supply their neighbors.

The yield of Judge Harriman's (80 colonies) and Mr. Robert Adams (30 colonies) exceeded, at that date, 200 pounds per colony. In November we expect to organize the Mississippi and Arkansas Bee-Keepers' Association. Greenville, Miss., Aug. 23, 1883.

For the American Bee Journal.

#### A Starter Machine.

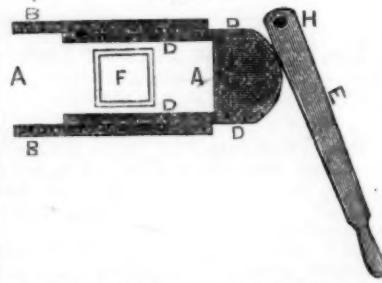
GEO. E. LYTHE.

I send a drawing of a Starter Machine, which is the invention of a bee-keeper near here (D. A. Sailor).

There is an awakening interest in bee-keeping here, but there are, as yet, very few bees kept in anything but box hives, yet we have a good location. There is plenty of room for enlightened bee-keepers here. Our honey season commences very early—the last of January and February. We have no trouble in wintering our bees if they have stores in plenty, so as not to starve.

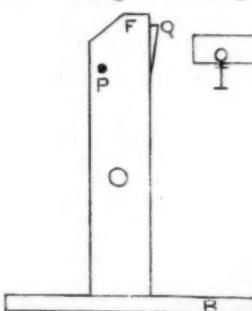
Figure 1 shows a top view of the machine, which consists of a board, A,

Figure 1.



10 inches wide by about 20 long. This has two pieces, B B, tacked on, which are  $6\frac{1}{2}$  inches apart. Inside C, is a block, 1 inch thick and  $4\frac{1}{2}$  wide, by any convenient length, say 4 or 5 inches, to which is tacked two strips,

Fig. 2      Fig. 3



D D, 1 inch wide and 1 inch thick by 10 long, which just slip between the strips, B B. E is a lever pinned to the board at H, which pulls the block, C, down against the post, F, which comes through a hole morticed in the board, A. Figure 2 shows the post, F, with a  $\frac{1}{2}$  inch hole at P, and a board, R, nailed to the bottom for the machine to stand on. Figure 3 shows the shape of one of two blocks which

are nailed to the underside of the board, A, with a hole at I. A peg is put through these holes, and also through the hole, P, in the post, F, which is between the two blocks in Fig. 3. Let the head of the post, F, when the board, A, is level, be just half the width of the section above the top of the board. Let the two wire springs, one of which is shown at Q, be just  $\frac{1}{2}$  or 3-16 below the top of the post, F. These should have the point in a hole in the post, so they can sink in; as the section is pressed up against the post, they catch the starter and gauge the depth that is marked into the wood.

The section is placed around the post, F, and the starter dropped against the wire springs with the right hand, brings the lever E, against the block, C, which will mash the section against the post, and squeeze the starter to the section; then with the left arm or elbow, shove the end of the board, A, down, which shoves the section up, mashes the starter well into the wood of the section, and bends the starter down right all ready for the hive. This is by far the best machine in use to my idea, as you can do faster and better work with it than any of the others.

I forgot to state that the head of the post, F, is covered with a piece of tin to prevent the wax from sticking to the post instead of the section.

Flat Bayou, Ark.

#### Ontario Convention.

The third annual general meeting of the Ontario Bee-Keepers' Association will meet in the City Hall, Toronto, on Tuesday, the 20th day of September next, during the second week of the Industrial Exhibition. As the North American Bee-Keepers' Convention meets at the same time and place, it has been arranged that the two bodies hold joint meetings in discussing matters pertaining to our common interests, as the leading bee-keepers of America are to be present. This will, undoubtedly, be the most interesting meeting of apiculturists ever assembled in Canada. The venerable Mr. Langstroth and all the prominent bee-men of the United States are expected to be present. A profitable time is anticipated, and a good turnout requested. The convention will last three days. A meeting for the purely business work of our association will be held sometime during the convention, of which due notice will be given.

R. MCKNIGHT,  
Pres. Ontario Bee Association.

The Cass County Bee-Keepers' Association, organized on the 15th of August, will meet on the 10th of October, 1883, in Logansport, Ind. All persons interested in bees and honey are respectfully invited to come.

DE WITT BROWN, Sec.

Articles for publication must be written on a separate piece of paper from items of business.


**Well Satisfied with the Harvest.**

The season is over, and I am well pleased with it. I extracted from about 80 colonies of bees, and realized about five tons of honey. A new discovery has been made in this valley, by a well-known bee-keeper named Hugo Sontag, who had about 300 colonies of bees in his apiary, in the last part of May. He found a queen with four yellow stripes on her abdomen, and the wings are scarlet. This queen he put into a colony of bees, which swarmed twice this season, and he realized 175 pounds of extracted honey from it. Mr. Sontag desires to have these queens in his whole apiary. He thinks they are more profitable than the Italians.

A. CORSEN.  
Cucamonga, Cal., Aug. 22, 1883.

**Verbenas.**

Please tell me through the columns of the bee-keepers' standard friend, the BEE JOURNAL, the name of the enclosed bloom, and its merits as a honey plant. I never saw but very little of it here, before this season, and at this date it is thick on the road sides and pastures, and green vacant lands. It commenced to bloom about the 10th of July; there are three colors of bloom: blue, purple, and nearly white, and is about 2 to 3 feet high, and looks as though it might bloom till frost. It seems to be a favorite with the bees. They work on it from early morn till late sun down. My bees are in white, red and sweet clover up to their eyes now, early and late, and a 5-acre sheet of silver hull buckwheat bloom to breakfast on every morning at day break. We have a good harvest yet. R. M. OSBORN.

Kane, Ill., Aug. 11, 1883.

[This is one of the four quite common vervains (*Verbena hastata*). It doubtless has been plenty in certain places in the neighborhood before, but escaped observation. It is a very good honey plant.—T. J. BURRILL.]

**My Honey Salesmen.**

The Madison County Fair Association (held at Richmond, Ky.,) did not offer any premiums on bees or honey. I made a display of Italian bees, about 500 pounds of honey, hives, sections, smokers, knives, Given foundation press, extractor, etc., and distributed 100 pamphlets on "Honey as Food and Medicine." My display attracted considerable attention, for it was something new to most of the people. I think I attained my object, viz.: To create an interest in bee-culture, and I am sure the 100 pamphlets on "Honey as Food and Medicine," which I distributed, will sell a great quantity of honey.

C. D. MIZE.

Cleveland, Ky., Aug. 26, 1883.

**Too Dry for Buckwheat.**

The season here has been rather behind the average for honey, as the weather was poor in the best honey season. Bees are getting a comfortable living now, and enough to cap up unfinished work. Goldenrod is just beginning to show, and they may get something from that, if there should come a shower and warmer weather soon. There is some buckwheat in bloom, but it is too dry now for buckwheat to yield much.

J. O. SHEARMAN.  
New Richmond, Mich., Aug. 25, 1883.

**Tropical Honey Tree.**

I send bloom and foliage from a branch broken off an ornamental tree 20 to 25 feet high, in one of the southern cities of this State, by a neighbor who is an admirer of and has a number of fine Italian bees, who was attracted to it by the hum of the bees that were around and upon it, gathering the honey. He says that it is the most wonderful attraction for bees that he ever saw; that a plate of honey out in an apiary in the month of August would not produce a greater excitement. The property on which the tree stood was occupied by a tenant, who could not give any information about it, only that it is a great attraction for bees. Will you please give us the name and nativity of the tree, and oblige.

C. C. RICHARDSON.  
Tipton, Ind., Aug. 9, 1883.

[The tree is one of the numerous species of *Aralia*, natives of Tropical America, allied to the well-known Hercules club, (*Aralia spinosa*). Nothing is known of the species as honey producers, but from the structure of the flowers, one would be led to suppose they might be very attractive to bees.—T. J. BURRILL.]

**Introducing a Queen in August.**

The following may encourage somebody. I ordered an early queen in May; she arrived in August during a rain storm, when I did not want her. I took two frames of brood, etc. with bees adhering and put them in a small hive, smoked them and stopped them in. The next day I put the Italian queen in her cage, at the entrance of the hive, and the day after that I turned her in, smoked them, and shut them up for two days. They accepted her.

R. B. DRANE.  
Edenton, N. C., Aug. 23, 1883.

**Smart-Weed Honey.**

The flow from smart-weed commenced 10 days ago here, and is immense. There is only 4 or 5 acres of it, and about 200 colonies of bees working on it. Each colony will gather as much from the 4 or 5 acres, as they would from 100 acres. I firmly believe if there was 400 colonies here, each would gather just as much as if there were but one. If bees were as strong in numbers at this time of the year as they are at the time horsemint blooms,

they would gather just as much honey; yet there are 50 acres of horsemint where there is one of smart-weed. It seems that every time the horsemint fails here, the smart-weed takes its place. In 1879 the horsemint failed, and there was an immense flow from smart-weed, some colonies gathering a surplus. In 1881 the horsemint yielded very little honey, and the smart-weed yielded plenty for winter supplies. Last year the horsemint flow was immense, and we got none from smart-weed.

W. S. DOUGLASS.  
Lexington, Tex., Aug. 20, 1883.

**How is This?**

2,825 pounds of honey from 28 colonies, spring count, and the fall honey yet to be gathered. I have increased to 55. I and my better-half extracted 900 pounds in one day. I have sold about 1,400 pounds already; the basswood trees were in bloom 21 days. Some colonies gave 160 pounds. I will send a full report this fall. My honey is No. 1 basswood.

FAYETTE LEE.  
Cakato, Minn., Aug. 26, 1883.

**Bee Balm.**

Please give me the botanical name of the enclosed. It is some kind of mint on which bees work quite extensively, but I do not know its botanical name.

J. E. VAN ETEN.  
Kingston, N. Y., Aug. 10, 1883.

[This beautiful plant is often known by the name of "Bee-Balm," or "Oswego Tea" (*Monarda didyma*). It is a native of the portions of the United States north of about 41° latitude, or from New England, northern Illinois, northward. It is closely allied to the more common "Horse Mint," (*Monarda fistulosa*). The plant might be cultivated without trouble, but in nature it prefers moist grounds—T. J. BURRILL.]

**Honey Season in Texas a Failure.**

The honey season is over in Texas, and is nearly a complete failure. Unless we have rain soon to start up fall flowers, we will have to feed heavily, the coming winter. We hope for a mild winter, and, if it comes that way, we are all right, and will be all ready for a boom in 1884.

E. P. MASSEY.  
Waco, Texas, Aug. 28, 1883.

**Making a Local Market.**

My bees for five weeks have done no good; they are at work now like little heroes. I do not look for much fall honey, as it is dry, and there is not a large crop of flowers. I have sold all of my white clover honey at 16% and 20 cents per pound, and could have sold as much more, if I had it. I live in a village, and sold all of my honey at home. Bee men must talk it up at home. I go to a family and try to sell them honey, and if I cannot sell them but one pound, I sell it, and

will not be a week before they want two pounds. I think honey, if managed rightly, will be readily sold at paying prices. D. R. ROSEBROUGH.

Casey, Ill., Aug. 27, 1883.

#### Spiked Loose-Strife Plant.

I send a box of flowers which I would like you to name in the BEE JOURNAL. It appears to be an excellent honey plant. It grows in our marshes and low lands, and grows from 6 to 8 feet high. I find the bees working on it all day long. I found some growing in the centre of a large patch of sweet clover, and as many bees working on it as the sweet clover. It commences to bloom in June, and continues to bloom until frost.

W. M. K. LAWSON.

Cold Spring, N. Y.

[This is the spiked loose-strife (*Lythrum salicaria*). It is an excellent honey plant, and worthy of cultivation for this purpose, as well as for its beauty. The arrangements for cross fertilization by bees are most curious and wonderful.—T. J. BURRILL, Champaign, Ill.]

#### Good Season for Honey and Increase.

Notwithstanding the very severe winter, and unusually backward and wet spring, we have had a very good summer, both for honey and increase, in this part of Ontario. Some bees here swarmed as late as the 16th of August, and we extracted until the 20th; then robbing commenced, and we stopped extracting, with most of the hives full of honey. I commenced the honey season with 29 colonies, and will have about 3,500 pounds of extracted honey, when it is all taken off, and increased to about 66 colonies, by natural swarming; and then up to about 80, by taking down top stories. I have not seen any drones killed yet. We had our first frost last night. Bees are working strongly on goldenrod now.

W. G. RUSSELL.

Millwood, Ont., Aug. 29, 1883.

#### Manitoba Bee Plant.

I send you part of a plant which grows here wild, in the streets, and attains from 3 to 4 feet in height. It branches out very largely. If this be a bee plant, it may be of service to bee-keepers, as it will fill up the time between basswood failing and the autumn flowers. If it should be desirable as a honey-producing plant, the seed can be had in any quantity. It is a vigorous grower. It seems filled with insects, either sucking the honey or the juice of the plant itself. White clover grows here well, and the prairies are a regular bed of wild flowers. Bees are not kept here yet, but I think ought to thrive well. Trees here are very scarce, except along river banks, but the land will produce anything, being very rich and productive. Wheat, at present, is the great staple. I am at present so situated that I cannot indulge in my favorite hobby, but I take an interest in it, and from the mere love of

it, I hope some day to indulge myself in the luxury of bee-keeping. I shall not be able to attend the meeting of bee-keepers in Toronto in September next, but I trust our friends from the United States will be generously entertained by their bee friends in Ontario. I shall be much disappointed if the meeting is not of the most pleasing character.

LEWIS WALBRIDGE,  
Chief Justice of Manitoba.  
Winnipeg P. O., Aug. 16, 1883.

[This plant produces little or no honey. The species is not confidently recognized, but it belongs to the great sunflower family (*compositæ*), however unlike a sunflower its appearance. Its nearest relative, known to me, is the great ragweed (*Ambrosia trifida*), not uncommonly found almost everywhere along water courses and in rich, low grounds. The amount of pollen produced by this Manitoba plant is prodigious, and it was doubtless this that attracted the insects. The flowers are, when taken singly, very inconspicuous.—T. J. BURRILL, Champaign, Ill.]

#### Robber Flies.

Enclosed find two insects which I would like you to give me the name of through the BEE JOURNAL, together with any other information of them you may have. I will give the heaviest and largest as No. 1, which I find to be very destructive to bees, killing them all day long, and it seems that it only kills bees when returning with their load. I have killed as many as five in one day, among my bees.

No. 2, the sharpest, kills a great many, but not as many as the other. The cause may be it does not take so much to do it.

Bees have done very well in this country, considering the most of them are in box hives and hollow logs. A neighbor and myself are all that keep bees in movable comb hives, and we began this season, and some of the old bee-keepers tell us we will do no good, as this country will not produce the honey, but we have many honey-producing plants and shrubs.

DR. S. L. YOTHER.

Brush, Tenn., Aug. 4, 1883.

[They are both species of robber flies. No. 1 is the one often called the bee killer (*Trupanea apivora*). One of these insects, watched during one day, was known to have killed 141 bees. As the juices only of the prey are sucked, the number may not appear so surprising, supposing the purpose of catching the bees is for food.

No. 2 is another species of the same family (*Asilus sericeus*), and has similar habits. Make a hoop of wire bent so as to form a circle 9 inches across with the two ends so bent as to enter

a hole in the end of a stick three or more feet long. On the wire hoop sew a bag-shaped net of mosquito-netting, or some similar stuff. Let the bag be about 12 to 15 inches deep. With this one may soon learn to catch these desperadoes, swinging the net in one hand.—T. J. BURRILL, Champaign, Ill.

## What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

#### Bees with Hairy Feet.

Enclosed I send you several dead Holy Land and Italian bees. Please examine them and tell me what you know of bees having such featherly or hairy toes, and did you ever see such bees before? I have thousands of them in all my crosses with the Holy Lands, Italians and blacks. They are good workers. I want to know if they have longer tongues than the original or not? They are very docile and gentle. We have had a fine rain for the past 48 hours, 4 inches of water fell, and white clover is blooming again. My bees have taken a fresh fever to swarm. I had one swarm today, and all of my hives are full of bees and honey. The sun shines very hot, 90° in the shade at noon to-day.

R. M. OSBORN.

Kane, Ill., Aug. 26, 1883.

ANSWER.—The bees enclosed in your letter were so mashed that one could discern only that they once bees. None of the peculiarities you mention were distinguishable.

May we ask you, dear reader, to speak a good word for the BEE JOURNAL to neighbors who keep bees, and send on at least one new subscription with your own? Our premium, "Bees and Honey," in cloth, for one new subscriber to the Weekly, or two for the Monthly, besides your own subscription to either edition, will pay you for your trouble, besides having the satisfaction of knowing that you have aided the BEE JOURNAL to a new subscriber, and progressive apiculture to another devotee.

Bee Pasturage a Necessity.—We have just issued a new pamphlet giving our views on this important subject, with suggestions what to plant, and when and how. It is illustrated with 26 engravings, and will be sent postpaid to any address for 10 cents.

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Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

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We have now published another edition of the pamphlet on "Honey as Food and Medicine," with more new Recipes for Honey Medicines, all kinds of cooking in which honey is used, and healthful and pleasant beverages.

We have put the price *still lower*, to encourage bee-keepers to scatter them far and wide. Single copy 5 cents, postpaid; per dozen, 40 cents; per hundred, \$2.50. 500 will be sent postpaid for \$10.00, or 1,000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit. Try it, and you will be surprised.

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OR THE

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*Editor of the Weekly Bee Journal.*

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Borodino, N. Y.  
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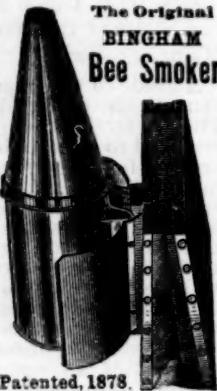
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